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**Zimbra****onyisko5@burgoyne.com**

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**Manganese**

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**From :** Benson, Bob <Benson.Bob@epa.gov>  
**Subject :** Manganese  
**To :** onysko5@burgoyne.com  
**Cc :** Clement, Robert <Clement.Robert@epa.gov>

Tue, Jul 10, 2018 03:02 PM



I got your voice mail message from last Thursday. Bob Clement provided your email address.

I am unable to appear as a witness in your case. I am providing publicly available scientific information that you can use.

I share your concerns about infants being exposed to manganese from infant formula if the tap water used to prepare the formula contains excessive amounts of manganese. Many people across the world share that concern.

I have attached a word document with excerpts from the ATSDR Tox Profile and the more recent Health Canada assessment. The Health Canada document derives a health-based value of 100 ug/L for infants. I have attached the full Health Canada document and the publications that Health Canada used to derive the health-based value.

I have also attached a number of other publications that document the toxicity of manganese.

The ATSDR Tox Profile is located at <http://www.atsdr.cdc.gov>.

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**Manganese Health Effects Summary.docx**  
14 KB

**Beaudin et al 2013 Journal.pdf**  
415 KB

**Bouchard\_2011.pdf**  
292 KB

**Guilarte ToxSci 2015.pdf**  
412 KB

**Kern and Smith 2011 Journal.pdf**  
601 KB

**Kern, Stanwood, Smith 2010 Journal.pdf**  
787 KB

**Ljung\_2007.pdf**  
800 KB

 **Luccini et al 2012.pdf**  
1 MB

 **Menezes-Filho\_2009.pdf**  
93 KB

 **Nelson et al 2012.pdf**  
160 KB

 **Oulhote et al 2014.pdf**  
508 KB

 **Rahman et al EHP631.alt\_.pdf**  
186 KB

 **manganese-Health Canada.pdf**  
882 KB

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